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Amendment dated April 3, 2009
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REMARKS

The Applicant thanks the Examiner for the thorough consideration given the present application. Claims 7, 8, and 13 were previously cancelled without prejudice to or disclaimer of the subject matter set forth therein. Claims 1-6, 9-12, and 14-52 are pending. Claims 1-6, 9-12, 24-32, 35-38, 40-47, and 49-52 are amended. Claims 1, 24, and 42 are independent. The Examiner is respectfully requested to reconsider the rejections in view of the amendments and remarks set forth herein.

Reasons for Entry of Amendments

At the outset, it is respectfully requested that this Amendment be entered into the Official File in view of the fact that the amendments to the claims automatically place the application in condition for allowance. In the alternative, if the Examiner does not agree that this application is in condition for allowance, it is respectfully requested that this Amendment be entered for the purpose of appeal.   This Amendment was not presented at an earlier date in view of the fact that Applicants did not fully appreciate the Examiner's position until the Final Office Action was reviewed.

Examiner Interview

If, during further examination of the present application, a discussion with the Applicant's Representative would advance the prosecution of the present application, the Examiner is encouraged to contact Carl T. Thomsen, at 1-703-208-4030 (direct line) at his convenience.

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Claim for Priority

The Examiner is respectfully requested to acknowledge the Applicant's claim for foreign priority based on EP 03396036.0 in the next official communication.

Rejections Under 35 U.S.C. §102(b) and 103(a)

Claim 1-6, 9-12, 14-17 and 24-52 stand rejected under 35 U.S.C. §102(b) as being anticipated by Krishnamurthy et al. (U.S. 6,421,676); and claims 18-23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Krishnamurthy et al. in view of Blott et al. (U.S. 6,449,618).

These rejections are respectfully traversed.

Amendments to Independent Claims 1, 24, and 42

While not conceding the appropriateness of the Examiner's rejection, but merely to advance prosecution of the present application, independent claim 1 has been amended herein to recite a combination of steps directed to a method for mediating event records, the method comprising

passing the event records through a processing chain of the at least three self-contained components, starting from one of the first self-contained components, then through one of the third self-contained components, and finally through one of the second self-contained components, and for said mediating and passing,

–   the method further comprising:

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—   collecting the event records from an element of the generation layer of events substantially continuously as a stream, by the first self-contained component in the processing chain,

—   processing the collected event records substantially continuously in the processing chain, wherein the step of processing includes:

  —   writing the event records output from each preceding self-contained component in the processing chain into one of said at least one buffer,

  —   reading said buffer substantially continuously by the subsequent self-contained component in the processing chain for reading the event records as input for said subsequent self-contained component from the buffer,

  —   after reading any of the event records from the buffer by any subsequent self-contained component in the processing chain, retaining a copy of said read event record in the buffer, and

  —   removing the retained copy of the event record from the buffer after successfully outputting the event record from the subsequent self-contained component in the processing chain, and

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   –   delivering the processed event records to an element of the operation system layer of

events substantially continuously as a stream, by the second self-contained

component in the processing chain.

Independent claims 24 and 42 of the present application have been amended in a

manner similar to that of claim 1.

The amendments of independent claims 1, 24, and 42 are based on the subject matter

set forth in the claims as previously presented, and the following teaching presented on page

25 of the original specification: "Processing Chain consists of several nodes. Typically a

Processing Chain has Nodes for collection, processing and delivery. The number of Nodes is

not limited. The number of Processing Chains in the system is not limited," and "The first

Node 120 in a Processing Chain 200 can be called a Collector Node and the last Node a

Delivery Node."

As best understood by the Applicant, once again the Examiner has apparently

construed independent claims 1, 24, and 42 of the present invention as compared to the

teachings of Krisnamurthy et al., such that:

CTOC (406) of Krisnamurthy et al. constitutes *event record* according to the claims

of the present invention,

Collectors (108) of Krisnamurthy et al. constitute *self-contained components*

according to the claims of the present invention, and

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Depot (302) of Krisnamurthy et al. constitutes *buffer* according to the claims of the present invention.

Without admitting other parts of the Examiner's interpretation to be correct, the Applicant once again states that the above interpretation is not correct. The *event records* of the present invention are written in *buffers* and in Krisnamurthy et al. the CTOC:s are <u>not</u> written in Depots. Instead, the CTOC:s are written in Input Queues (402) and Output Queues (404).

Now, even assuming that the Input Queues (402) and Output Queues (404) would qualify as *buffers*, Krisnamurthy et al. would still fail to disclose a method according to independent claim 1 of the present invention.

As noted above, independent claim 1 recites:

- "after reading any of the event records from the buffer by any subsequent self-contained component in the processing chain, retaining a copy of said read event record in the buffer, and

- removing the retained copy of the event record from the buffer after successfully outputting the event record from the subsequent self-contained component in the processing chain."

Therefore, in this step the event record is successfully passed through the following node before the copy of the event record is removed from the buffer preceding said following node. This feature is not disclosed in Krisnamurthy et al. Instead, in Krisnamurthy et al., the

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copy is already removed after successfully passing the record to the following node, or using the wording of independent claim 1 of the present invention, the copy of the event record is removed from the buffer already after successfully outputting the event record from the reading self-contained component of the mediation layer.

Therefore, the Krisnamurthy et al. document teaches removing the copy of the event record from the buffer <u>before successfully outputting</u> the event record from the subsequent self-contained component in the processing chain, and <u>even before processing</u> the event records in said subsequent self-contained component.

In the following, this difference is exemplified by writing the above-recited step of independent claim 1 by using the following notions:

reading self-contained component = Collector 108a

preceding self-contained component (the component that writes in the buffer) = Collector 108b

buffer = Output Queue 404 of Collector 108b

event record = CTOC 406

Then, the currently amended claims require that: "after reading any CTOC 406 from Output Queue 404 of Collector 108b by Collector 108a, retaining a copy of said read CTOC 406 in Output Queue 404, and removing the retained copy of CTOC 406 from the Output Queue 404 after successfully outputting CTOC 406 from Collector 108a (i.e., the subsequent Collector 108 in the processing chain)."

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On the other hand, column 9, lines 62 to 67 in Krisnamurthy et al. teaches: "After completion of the collection data transfer, output scheduler 432 calls output queue 404 and removes the CTOC if the transfer was successful. If the collection data transfer failed, the retry count within the CTOC is increased and the CTOC is placed back into the waiting state in output queue 404."

This disclosure confirms that the CTOC:s are removed from the output queues after successfully passing the events to the next node in the sequence of nodes. This procedure may safeguard that data is not lost due to errors in transmission between two nodes. However, this procedure does not prevent loss of data in case the subsequent node in the sequence of nodes falls down. In this case, recovery of any data is dependent solely on the recovery process of the malfunctioning node. In the case of major system fault in the processing node, data can be permanently lost, as confirmed by column 9, lines 45 to 48 in Krisnamurthy et al.

The method according to independent claim 1 removes an event record from a buffer only after the event record has been successfully processed and outputted by the subsequent node in the sequence of nodes. Then, the processed event record is safe in the next buffer or in the target OSS/BSS system, prior to removing the copy from the preceding buffer. Therefore, in a method according to independent claim 1, a sudden failure of a node does not cause loss of data, and the recovery of data is not dependent on the recovery mechanisms of the particular node. Instead, the data is immediately available in the buffer preceding the crashed node and can be processed by an auxiliary node, for instance. Therefore, the method

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of independent claim 1 is extremely reliable and provides immediate recovery of the processing.

Independent claims 24 and 42 of the present application distinguish over Krishnamurthy et al. (U.S. 6,421,676), at least for the reasons described above.

At least for the reasons explained above, the Applicant respectfully submits that the combination of features set forth in each of independent claims 1, 24, and 42 is not disclosed or made obvious by the prior art of record, including Krishnamurthy et al. (U.S. 6,421,676).

Therefore, independent claims 1, 24, and 42 are in condition for allowance.

Dependent Claims

All dependent claims are in condition for allowance due to their dependency from allowable independent claims, or due to the additional novel features set forth therein.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. §102(b) and 103(a) are respectfully requested.

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CONCLUSION

Since the remaining patents cited by the Examiner have not been utilized to reject claims, but merely to show the state of the art, no comment need be made with respect thereto.
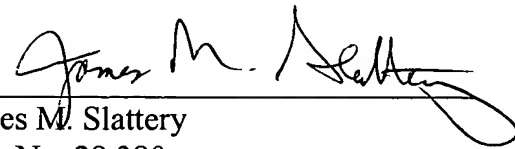
All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, he is invited to telephone Carl T. Thomsen (Reg. No. 50,786) at (703) 208-4030(direct line).

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

Date: April 3, 2009

Respectfully submitted,

By

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